



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,786	02/22/2002	Aaron J. Hanna	K35A1018	1124
35219	7590	10/20/2004	EXAMINER	
WESTERN DIGITAL TECHNOLOGIES, INC.			MAGEE, CHRISTOPHER R	
20511 LAKE FOREST DR. -C205				
LAKE FOREST, CA 92630			ART UNIT	PAPER NUMBER
			2653	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,786

Applicant(s)

HANNA ET AL.

Examiner

Christopher R. Magee

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,9,11,12,14,15 and 18 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,8,10,13,16 and 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections of claims 1, 3, 5, and 7 under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- Claims 1, 3, 5 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Boutaghou (US 6,359,758).

Regarding claims 1, 3, 5 and 7, Boutaghou shows a head stack assembly for a disk drive [Figs. 1 and 3], the head stack assembly comprising:

- a body portion [not numbered] including a bore [15] defining a pivot axis [14];
- an actuator arm [16] cantilevered from the body portion;
- a head gimbal assembly supported at the actuator arm and including:
 - a load beam [18] having a first end and a second end, the first end being attached to the actuator arm [16], the load beam defining a load beam feature near the second end, at least a portion of the load beam feature defining an extension [31] that is parallel to the pivot axis and that has a rectangular cross-section having a length to width aspect ratio that is greater than 1 [Fig. 3], and
 - a slider [24] coupled to a free end of the load beam extension [31], and
 - a gimbal [22] coupled to the second end of the load beam and to the slider [24].

Art Unit: 2653

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections of claims 9, 12 and 15 under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 9, 12 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kudo et al. (hereinafter Kudo) (US 5,907,457).

Regarding claims 9, 12 and 15, Kudo shows a head stack assembly for a disk drive [col. 1, lines 6-15] having a disk, the head stack assembly comprising:

a body portion [not numbered; Fig. 4];

an actuator arm [not numbered; Fig. 4] cantilevered from the body portion;

a head gimbal assembly supported at the actuator arm and including:

a load beam [21] having a first end and a second end, the first end being attached to the actuator arm;

a gimbal [23] coupled to the second end of the load beam [21];

a passive spacer [20] defining a first surface that is coupled to the gimbal [23] and a second surface that faces away from the first surface;

a slider [15] coupled the second surface of the passive spacer [20].

Art Unit: 2653

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kudo et al. (hereinafter Kudo) (US 5,907,457) as applied to claims 9, 12 and 15 above, and further in view of Goss (US 5,661,619).

- Regarding claims 11, 14 and 18, Kudo shows all the features as previously noted except the load beam having a dimple near the second end and the spacer or gimbal being coupled to said dimple.

Goss discloses a load beam [30] having a dimple [26] in Figures 6, 8 and 9, wherein ovoid feature 22 (i.e., acts as a spacer) is configured to accept dimple [26] [col. 4, lines 41-51].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the load beam of Kudo with a dimple near the second end and the spacer or gimbal being coupled to said dimple as taught by Goss.

The rationale is as follows: One of ordinary skill in the art at the time of the invention would have been motivated to provide the load beam of Kudo with a dimple near the second end and the spacer or gimbal being coupled to said dimple as taught by Goss so that the slider can accommodate proper static pitch and roll attitudinal alignment during disk drive operation [Goss; col. 4, lines 47-51].

Allowable Subject Matter

4. Claims 2, 4, 6, 8, 10, 13, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Girard (US 5,790,347) is cited to show a head suspension load beam and flexure construction for reducing structural height.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Magee whose telephone number is (703) 605-4256. The examiner can normally be reached on M-F, 8: 00 am-5: 30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 14, 2004



Christopher R. Magee
Patent Examiner
Art Unit 2653

A. J. HEINZ
PRIMARY EXAMINER
GROUP ~~2500~~ A.U. 2653

